

IN THE CLAIMS:

Please note that all claims currently pending and under consideration in the referenced application are shown below, in clean form, for clarity.

Please amend claims 1-2, 6, 10, 16-17, 21-22, 25, and 29-32 as follows:

Sub
C1
2/5

1. (amended) A method of disposing a conductive structure on at least one contact pad on an active surface of a semiconductor device substrate, comprising:
disposing a layer of material over the substrate;
altering a surface of said layer of material to impart said layer with a thickness corresponding approximately to a desired height of the conductive structure;
forming at least one aperture through said layer to expose at least a portion of the at least one contact pad;
disposing a quantity of conductive material on said layer and permitting said conductive material to substantially fill said at least one aperture;
bonding said conductive material within said aperture to the at least one contact pad to form a conductive structure of substantially said desired height, and
at least partially exposing a periphery of the conductive structure through said layer.

Sub. E17

2. (amended) The method of claim 1, wherein said disposing said quantity of conductive material on said layer comprises disposing a quantity of substantially molten conductive material on said layer.

X

3. The method of claim 2, wherein said bonding is effected as said quantity of substantially molten conductive material solidifies in said at least one aperture.

X

4. The method of claim 1, wherein said disposing said layer comprises adhering a film to a surface of the substrate.

~~5. The method of claim 1, wherein said disposing said layer comprises fabricating said layer on the substrate from material comprising polymer, silicon oxide, or silicon nitride.~~

Sub
C17
~~6. (amended) The method of claim 1, wherein said disposing said layer comprises placing a quantity of polymeric material on the substrate and wherein said altering said surface comprises spreading said polymeric material to a substantially consistent thickness over at least a portion of a surface of the substrate.~~

Sub C17
A15
~~7. The method of claim 1, wherein said forming said aperture occurs prior to said disposing said layer over the substrate.~~

~~8. The method of claim 1, wherein said forming said aperture comprises etching said aperture through said layer.~~

~~9. The method of claim 8, wherein said etching occurs following said disposing said layer over the substrate.~~

Sub
C17
C13
cont.
~~10. (amended) The method of claim 1, wherein said at least partially exposing said periphery of the conductive structure comprises substantially removing said layer from the substrate.~~

A15
Sub C17
~~11. The method of claim 10, wherein said removing comprises etching said layer.~~

~~12. The method of claim 10, wherein said removing comprises peeling said layer away from the substrate.~~

Sub
C17
~~13. The method of claim 1, wherein said at least partially exposing said periphery of the conductive structure comprises reducing said thickness of said layer.~~

Sub E1
14. The method of claim 13, wherein said reducing said thickness comprises at least partially etching said layer.

15. The method of claim 13, wherein said reducing said thickness comprises shrinking said layer.

16. (amended) The method of claim 15, wherein said shrinking comprises exposing said layer to radiation, exposing said layer to a shrinking agent, or exposing said layer to a plasma.

Sub C5
17. (amended) The method of claim 1, wherein said at least partially exposing said periphery comprises exposing said layer to a solvent.

Sub E1
18. The method of claim 1, wherein said disposing said quantity of conductive material comprises immersing a surface of the substrate having said layer disposed thereon within a quantity of molten conductive material.

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19. The method of claim 1, wherein said disposing said quantity of conductive material comprises disposing solder on said layer.

20. The method of claim 1, wherein said disposing said quantity of conductive material comprises disposing conductive elastomer on said layer.

21. (amended) The method of claim 1, wherein said forming said aperture comprises exposing a portion of said at least one contact pad (located within a periphery thereof)

at least one
how limits claim 1?
how else?

Sub C6

22. (amended) A method of forming a solder mask, comprising:
 disposing a nonmetallic solder mask material onto an active surface of a substrate;
 forming a layer of said solder mask material having a substantially consistent thickness on the active surface of said substrate;
 altering a surface of said layer to impart said layer with a thickness corresponding to a desired conductive structure height; and
 forming at least one aperture through said layer in a location corresponding to a location of at least one contact pad of said substrate to expose said at least one contact pad through said solder mask.

23. The method of claim 22, wherein said disposing said solder mask material comprises fabricating a layer comprising a silicon oxide.

Sub C7

24. The method of claim 23, wherein said disposing and said forming said layer are effected substantially simultaneously.

Sub C7

25. (amended) The method of claim 23, wherein said altering said surface of said layer comprises planarizing said layer.

Sub C7

26. The method of claim 25, wherein said planarizing comprises chemical-mechanical polishing.

27. The method of claim 22, wherein said disposing said solder mask material comprises disposing a polymeric material on said active surface.

Sub C8

28. The method of claim 27, wherein said forming said layer comprises softening or melting said polymeric material.

Sub C8 (end)
29. (amended) The method of claim 28, wherein said altering said surface comprises spinning said polymeric material over said active surface.

30. (amended) The method of claim 28, wherein said altering said surface comprises spreading said polymeric material across said active surface.

Sub C17
31. (amended) The method of claim 22, wherein said forming said at least one aperture comprises etching a region of said layer.

32. (amended) The method of claim 22, wherein said ^{non-metallic} ~~at least one~~ solder mask material comprises a photosensitive polymeric material and wherein said forming said at least one aperture comprises exposing a region of said photosensitive polymeric material disposed over said at least one contact pad to form said at least one aperture through said layer.

Sub C9
33. A method of exposing a periphery of a conductive structure on a semiconductor device, comprising reducing a thickness of a solder mask disposed around said periphery.

Sub C17
34. The method of claim 33, wherein said reducing said thickness comprises irradiating said solder mask, exposing said solder mask to a plasma, or exposing said solder mask to a shrinking agent.

AS
conclude
35. The method of claim 33, wherein said reducing said thickness comprises }
(selectively etching a material of said solder mask with respect to the conductive structure.)